Bluetooth Car FM modulator

User Manual

The F-190 is a Bluetooth hands free set for mobile phones and a wireless MP3-Player for any car audio systems. Before using the device, please read this user manual accurately.

General Features:

1. Supports SD-cards and USB-Flash Drives.
2. Audio input for any stereo device.
3. Indicates incoming calls with audio ringing and flicker of the display.
4. Hands free mode and private listening function.
5. Bluetooth 2.4GHz stereo (standard 2.0GHz) for clear audio.
6. Audio format: MP3 and WMA.
7. Include 20 key remote control + answer call/ending call and Private-listening-function buttons at the front of the unit.

Key Operations:

1. **+** Frequency Up for choosing the higher frequency.
2. **—** Frequency Down for choosing lower frequency.
3. ◀◀ Previous Music Track (long press – for volume down).
4. ▶▶ Next Music Track (long press – for volume up).
5. ▶/II Play / Stop ⇨ when the unit is plugged into 12V car-cigarette-lighter Power socket, music is played automatically.

Press the key once ⇨ music stops, press the key again ⇨ music continues to play.

6. Key for answering or denying of an incoming call ⇨ if incoming call, music stops, press the key for answering the incoming call. To finish the call, press the key again and the call ends. Press it again for playing music, or wait

few seconds, the music resumes. When the Bluetooth function is activated, the calls will transfer through your in car speaker system and you can dial out or answer the call use your in car speaker system.

7. Key for private phone calls ⇨ when an incoming call shall not be heard by other people, you can press this key ⇨ the call will be re directed to the mobile phone.

Bluetooth Pairing Operation Instructions:

Power the Bluetooth car FM modulator on, (without any card or USB flash drive) set your mobile phone to search the new Bluetooth equipment and connect it by after finding. If a code is required to activate your mobile connection with the F-190, key in **0000** in your mobile phone's Bluetooth settings and confirm **or** press ▶/II at the unit **in the same time;** the mobile phone confirms the successful connection with an "OK".
Now you can see the Bluetooth indicator on F-190 is flicking and your mobile Bluetooth switched to F-190 and is now ready to use.

Audio Line In Instructions

1. Insert the 2.5mm audio-line to the audio input.
2. Insert the 3.5mm audio-line to another audio device
   [e.g. MP3 / MP4-Player, CD / DVD-Player]
3. Turn "the other" audio device ON ⇨ music is "send" to the FM-Transmitter through the audio-line [listening through the car-radio].

Remote Control

Play / Pause	Start / Stop the music
CH (--)	Frequency down
CH (+)	Frequency up
EQ	Changes sound characteristic: Normal (default) → Rock → Pop → Classic → Jazz → Blues → Hall → Bass → Soft → Country → Opera
Volume (--)	Volume down
Volume (+)	Volume up
PREV	Previous track
NEXT	Next track
0123456789	Number keys for setting the frequency and picking songs
Pick Song	Confirms picking a song after selection with the number keys
CH Set	Confirms setting the frequency after selection with the number keys

Operation illustration:

1. The FM Transmitter has 206 frequencies points (87.5 – 108.0 MHz) to use.
   Usage of the number keys (0-9) to select a frequency.
   Then press **CH SET** key to confirm and save the frequency.

2. Usage of the number keys (0-9) to select the music track number.
   Then press **PICK SONG** key to confirm.

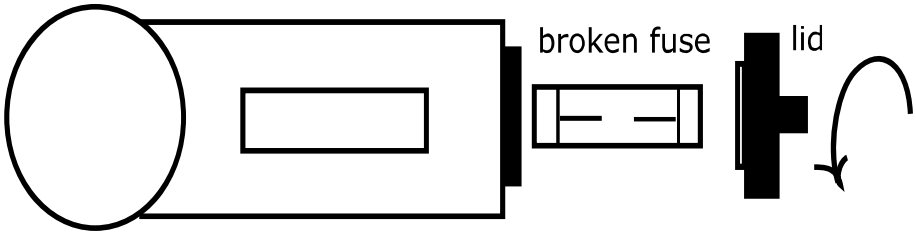
3. Every time **EQ** is pressed the sound characteristics change as follows:
   NORMAL (default setting) → ROCK → POP → CLASSIC → JAZZ → BLUES → HALL → BASS → SOFT → COUNTRY → OPERA.
   Press long **EQ** key and the system returns back to NORMAL.

4. Last settings for volume, FM-transmission-frequency and music track are stored when the device is powered off.

5. USB and SD-card can both be connected to the device. The first medium connected, either USB or SD-card, is played. To select the other medium, the first one must be disconnected.

6. When an external audio device is connected to the audio-in jack, the playback from USB or SD-card stops automatically and cannot be started or paused by pressing the PLAY/PAUSE button.

How to Change the Fuse:



How to change the fuse tube
1. Open the lid and take out the damaged fuse .
2. Place the new fuse tube inside the FM transimitter.
3. Tight the lid again and your device is ready to use again.

Replacing the Remote Control Battery:

1) Remove the battery compartment cover by pulling the cover in the direction of the arrow.

2) Remove the battery.

3) Insert the replacement battery.
   Keep attention on the direction of the correct polarization (+/-).

4) Put the cover back to the battery compartment.

Technical Parameters

Power Supply:	DC 12V – 24V
Supported File Format:	MP3 / WMA
Frequency Response:	100 – 15000 Hz
Frequency Stability:	+/- 20ppm (0°C up to +40°C)
Storage Temperature:	-5°C up to +45°C
Operating Temperature:	0°C up to +40°C
Working Current:	< 150mA
FM Transmit Distance:	87.5 – 108.0 MHz
Stereo Crosstalk:	45DB
Inputs:	USB / 2.5mm analog audio input / SD slot
Transmit distance:	< 5 meters

Important Notice

1. Use at voltage DC 12-24V ONLY! Other voltage could affect the accurate work of the device or – in worst case – damage of the device.
2. When starting the car engine – DO NOT insert the device to the car-cigarette-lighter socket. Only insert the device after the car engine is started.
3. Take the device out of car-cigarette-lighter socket when not using it.
4. Use the car's speaker to control the volume, DO NOT adjust the device's volume too high or music may noise or distorted phenomenon may appear. Decrease the music volume when noise, storm sound or distorted phenomenon occurs.
5. Avoid local strong radio stations when choosing a channel – it could affect the sound quality.
6. Check the device's frequency – it should match with the car audio's frequency.

When no music can be heard - turn the volume to a higher level. It could also be that in that moment the car audio is not receive the music [e.g. dead spot].

FQA and Trouble shooting

1. If the device does not power on ⇨ reason for that could be a bad fuse.
2. Therefore check the fuse first and replace it by a new one.

Security and Disposal Hints for Batteries

- Hold children off batteries. When a child swallowed a battery by mistake go to a doctors place or bring the child into a hospital promptly!
- Never short batteries.
- Look for the right polarity (+) and (—) of batteries! Always change all batteries, never use old and new batteries or batteries of different typs together.
- Do NOT open, deform or load up batteries!
  There is a **risk of injury** by leakage battery fluid!
- NEVER throw batteries into fire! There is a **risk of explosion**!
- Take out exhausted batteries from the device.
- Take out batteries from the device when it's not used over a longer period of time.

Hints for Environment Protection

Packages materials are raw materials and can be recycled.
Separate the packages by types and recycle them to an adequate recycling on behalf of the environment.
More detailed information you get from your official civil service.

Do not disposal old devices into the domestic waste.
Disposal old / defective devices professionally!
The environment will be grateful for that.
Information regarding places for disposal and opening hours you get from your official civil service.

Do not disposal batteries into the domestic waste.
Disposal old / empty / defective batteries professionally!
The environment will be more than grateful for that.
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Cleaning

Protect the device from contamination and pollution. Only clean the device with soft cloth or drapery, avoid to using rough or coarse-grained materials. Do NOT use solvents or other aggressive cleanser. Wipe the device after cleaning accurately.

Important Notice

Should battery fluid leak from a battery, wipe the battery-case with a soft cloth dry and put in a new battery!